



# QUICK RESPONSE

Saving life and property through effective licensing, plan review, and inspection of fire protection systems.

June 2012

## Ball Drip

In areas subject to freezing, the piping between the fire department connection (FDC) and the FDC check valve is to be provided with an automatic means to drain water. This is most commonly done with the installation of an approved automatic **ball drip**. Without the **ball drip**, water would be trapped and during freezing weather that could cause an ice plug which would prevent the fire department from pumping into the system under fire conditions. Fire department connection components may also be damaged such as the cracked check valve indicated in *Exhibit 1*.

The **ball drip** is installed at the low point in the fire department connection piping of automatic sprinkler systems. Under fire conditions, water pressure from a fire department pumper pumping into the FDC automatically closes this valve. When the pressure ceases, the ball drip automatically re-opens, permitting this piping to drain and thereby preventing freezing.

It is important that the **ball drip** be installed in the proper orientation, horizontal or vertical, per the installation instructions.

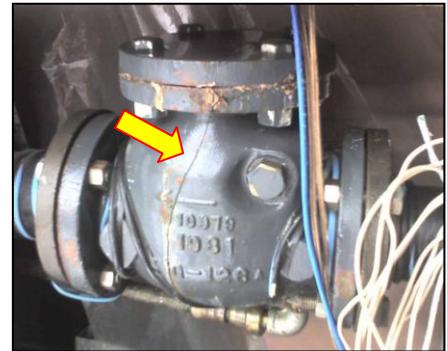


Exhibit 1

*Exhibit 2* is a **ball drip** that is to be installed only horizontally. The internal ball (**A**) rests in the lower most area of the valve body allowing for proper drainage of moisture accumulation. Upon FDC pressurization, the internal ball is “pushed” into the small end of the ball drip body closing the opening. When pressure is removed, gravity returns the ball to its original position.

*Exhibit 3* shows a **ball drip** that can be installed vertically. This type of **ball drip** utilizes a spring (**B**) loaded ball mechanism to maintain the valve open under normal conditions. As the inlet is pressurized, the ball is forced downward and the opening is closed. On decreasing pressure, the spring automatically reopens the valve.

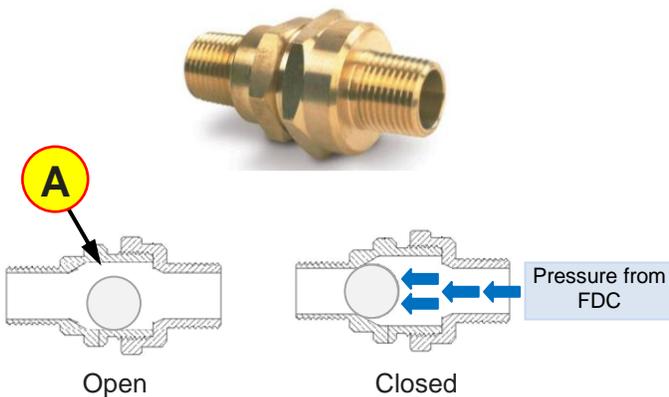


Exhibit 2 - Horizontal Ball Drip

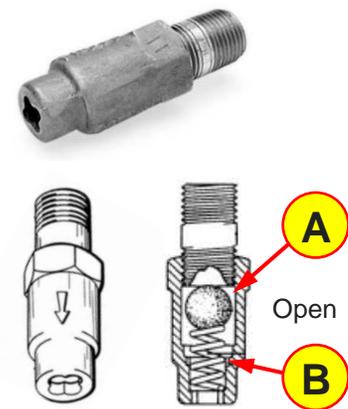


Exhibit 3 - Vertical Ball Drip